

the past 35 years and the growing applications of these data, we must remember that the success of Landsat begins and continues with people. We owe our gratitude to the many talented and hard-working scientists, engineers and other professionals who have been involved in the Landsat program.

I urge my colleagues to support H. Res. 891. As we address the implications of climate change and the pressure on our environment and resources, it is important that we ensure the continuation of the Landsat program and ensure the research, technology and educational investments that are required to expand the use of Landsat data and the benefits they provide to science and society.

Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise to join my colleague in support of H.R. 891, celebrating 35 years of continuous operation of the Federal Government's Earth observing Landsat satellite program. Generations of Landsat satellites have taken and continue to take an uninterrupted record of images of Earth's oceans and lands, enabling resource managers, geologists, climate researchers and scientists to closely monitor land use changes, water consumption, forestry, agricultural and the effects of climate change through the regular acquisition and cataloging of these photographs. This detailed and continuous record of observations offers an unambiguous insight into the changes that are occurring on a global, regional and local scale.

Landsat data and the research findings they enable would not be possible without the excellent cooperation and joint management between NASA, who designs, builds and launches the satellites, and the United States Geological Survey and the Department of Interior, who manage the archives of Landsat data at the National Satellite Land Remote Sensing Data Archives, what a title, located in Sioux Falls, South Dakota. Their data records extend back 33 years.

The early history of Landsat offers a remarkable insight into the events, culture, personalities and institutional jealousies of the 1960s and 1970s. When our earliest astronauts returned from the Mercury and Gemini missions with photographs of the Earth taken from their spacecraft, scientists and engineers quickly began to envision the value of using robotic spacecraft as a means of monitoring land use changes.

However, the Department of Defense initially objected to a space-based civilian reconnaissance satellite out of concern that it would compromise their own spy satellite programs. The Office of Management and Budget also objected, arguing that land use data could be more cheaply acquired by high-flying aircraft.

According to NASA historians, then Secretary of the Interior Stewart L.

Udall, being convinced of the value of space-based civil reconnaissance satellites, announced in 1966 that his department was initiating its own Earth observing satellite program. His pronouncement apparently spurred NASA to take the initiative to proceed in an ambitious manner to build Landsat.

Today, Landsat 5 and Landsat 7 continue to operate in Earth orbit, although both are nearing the end of their operational lives and may not last long enough to overlap the launch of their successor in 2011, called the Landsat Data Continuity Mission. If they both fail, the 35 year record of continuous Landsat coverage will be interrupted, and though it will be disappointing, I am optimistic that other methods of data collection will be able to fill in most of the gaps during that interim.

The Landsat program's data records are an invaluable national resource. The tenacity and the brilliance of the men and women at NASA, at USGS, and the contractors who helped design, build and launch the satellites, as well as manage the huge volume of data generated by the family of Landsat satellites, have created a legacy that will continue to serve our Nation's needs for many, many years to come.

Mr. Speaker, I urge my colleagues to support House Resolution 891.

With that, I reserve the balance of my time.

Mr. BAIRD. I want to thank the gentleman from Oklahoma. It is an astonishing history, isn't it? The fact that we have now got a continuous record of changes at all sorts of levels, changes in ground cover, changes in agriculture, changes in the water resources, et cetera, is an extraordinary resource for a host of uses. Our agriculture community benefits from this, our national parks benefit from this, flood control managers benefit from this.

This Landsat satellite system, which was, as the gentleman from Oklahoma pointed out, once rather controversial, is now seen as something that would be very difficult to plan without. It has produced enormous economic benefits and economic savings.

Who would have thought many decades ago before the space program that one day we would be able to send up remote instruments to look back down on Earth, not from the 40,000 foot level, but much higher, to give us the broad sweep; but not only the temporary snapshot, but the vast look over time, so you can see changes, both constructive changes and the losses. Absolutely incredible and important.

I want to share the gentleman's concern. We need that continuity to continue. Let us hope that the good engineers of NASA have produced an instrument which can last much longer, as they have in many cases, as we see in the Mars rover system, for example. But we need that continuity in the data records so scientists can see what changes have occurred over time with-

out interruption. We need to continue that not only with the proximate, the next Landsat satellite, but future generations as well.

Mr. Speaker, I thank the scientists and engineers, and thank the gentleman from Oklahoma for his support of this resolution.

Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I have no further requests for time, and I yield back the balance of my time.

Mr. BAIRD. Again, I want to commend my colleagues for introducing this legislation. I think this is absolutely appropriate, particularly on Earth Day. But it is helpful for us to remember down here on Earth that our lives on Earth are made better by the space program and the observing network that we have up in space that help us anticipate all kinds of potential disasters and avoid those, and also guide us in doing proactive things to improve the health of our great planet.

Mr. Speaker, I yield back the balance of my time and urge a "yes" vote on this resolution.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Washington (Mr. BAIRD) that the House suspend the rules and agree to the resolution, H. Res. 891, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the resolution, as amended, was agreed to.

A motion to reconsider was laid on the table.

□ 1545

JOHN ARCHIBALD WHEELER

Mr. BAIRD. Mr. Speaker, I move to suspend the rules and agree to the resolution (H. Res. 1118) honoring the life and achievements of John Archibald Wheeler and expressing condolences on his passing.

The Clerk read the title of the resolution.

The text of the resolution is as follows:

H. RES. 1118

Whereas John Archibald Wheeler was born July 9, 1911, in Jacksonville, Florida;

Whereas John Wheeler graduated from high school at age 15 and earned a Ph.D. in physics from Johns Hopkins University at age 21;

Whereas Dr. Wheeler then moved to Copenhagen to work in the field of nuclear physics with pioneering physicist Niels Bohr;

Whereas, while still in his 20s, Dr. Wheeler, then a Professor of Physics at Princeton, along with Dr. Bohr in 1939 worked out the first explanation of how the newly discovered nuclear fission actually worked;

Whereas Dr. Wheeler spent the war years at Hanford, Washington working on the theoretical understanding of nuclear reactions that led to production of plutonium for the bomb dropped on Nagasaki and later worked on the development of the American hydrogen bomb under Project Matterhorn B;

Whereas Dr. Wheeler then returned to Princeton where, after discussion with Albert Einstein, he switched from the study of

nuclear physics to working on extending the theory of general relativity, including in 1957 creating the concept of wormholes to describe tunnels in space-time and in 1967 coining the term black hole as part of the theory of gravitational collapse;

Whereas Dr. Wheeler was a visionary who could see farther on the horizon than most people by way of his physical intuition;

Whereas Dr. Wheeler was a beloved academic who trained some of the best minds in the next generation of physicists, a gifted communicator sometimes called a physics poet, and an active researcher for over 70 years; and

Whereas Dr. Wheeler was, in the words of Dr. Max Texmark, the last Titan, the only physics superhero still standing until the time of his death on April 13, 2008: Now, therefore, be it

Resolved, That the House of Representatives—

(1) honors the life and accomplishments of Professor John Archibald Wheeler and expresses condolences on his passing; and

(2) recognizes the profound importance of Dr. Wheeler's record as a pioneer in nuclear and theoretical physics and a long-time contributor to advancing mankind's understanding of the nature and workings of the universe.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Washington (Mr. BAIRD) and the gentleman from Oklahoma (Mr. LUCAS) each will control 20 minutes.

The Chair recognizes the gentleman from Washington.

GENERAL LEAVE

Mr. BAIRD. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and to include extraneous material on H. Res. 1118, the resolution now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Washington?

There was no objection.

Mr. BAIRD. Mr. Speaker, I yield myself such time as I may consume.

I rise today to pay tribute to a great American scientist, Dr. John Archibald Wheeler. Dr. Wheeler passed away recently at the age of 96. He was a pioneer in the fields of nuclear and theoretical physics. Along with Niels Bohr, Dr. Wheeler worked out the first explanation of how nuclear fission actually worked. During the war years, Dr. Wheeler went to work on the Manhattan Project, helping to understand the theoretical basis for plutonium production. After the war, Dr. Wheeler continued his work for the country by helping to develop the American hydrogen bomb.

After returning to academia, Dr. Wheeler continued his contributions to the field of physics. In 1957, Dr. Wheeler created the concept of wormholes to describe tunnels in space-time, and in 1967 he coined the term "black hole," not to describe Congress, but as part of the theory of gravitational collapse.

John Wheeler also contributed greatly to the scientific community with his devotion to teaching and training the next generation of scientists. He was a devoted teacher and textbook author,

and served as a professor for over 70 years. Some of his graduate students included Richard Feynman, Kip Thorne, and Hugh Everett, all renowned physicists in their own right.

Mr. Speaker, last week we lost one of the truly great scientific minds of the 20th century. I urge my colleagues to support this resolution honoring John Wheeler's achievements and expressing our profound condolences on his passing.

I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise today in support of House Resolution 1118, honoring the life and achievements of John Archibald Wheeler and expressing condolences on his passing. Dr. John Archibald Wheeler, who was one of America's greatest physicists, passed away this last week at the age of 96. Dr. Wheeler's wife of over 70 years passed away in 2007; and he is survived by three children, eight grandchildren, 16 great-grandchildren, six step grandchildren, and 11 step great-grandchildren. What a fruitful life.

Dr. Wheeler was a man who was decades ahead of his time. He not only played a key role in the development of the theory of nuclear fission with Niels Bohr, but also became the first scientist to give black holes and wormholes a name.

Dr. Wheeler is described as a visionary physicist and teacher. His work on the Manhattan Project in 1941 helped build the atomic bomb. Always seeking answers to the larger questions of the universe, he would spend his time debating the meaning of the quantum theory and the nature of reality with Albert Einstein and Niels Bohr.

John Archibald Wheeler was born on July 9, 1911, in Jacksonville, Florida. Dr. Wheeler earned his Ph.D. in physics from Johns Hopkins University at the old age of 21 years.

Dr. Wheeler accomplished many things during his lifetime. Perhaps his greatest accomplishment was his ability to inspire generations of physicists and scientists through his teachings at Princeton and at the University of Texas, and his constant ambition to answer the greatest questions of the universe.

In 1981, Dr. Wheeler wrote: "We are no longer satisfied with insights only into particles, or fields of force, or geometry, or even space and time; today we demand of physics some understanding of existence itself." Think about that. It is for this constant quest for knowledge that inspired his life and will continue to inspire the American scientific community. Mr. Speaker, I urge my colleagues to support House Resolution 1118.

I reserve the balance of my time.

Mr. BAIRD. Mr. Speaker, at this moment it is a real pleasure to yield time to one of our distinguished new Members. We sometimes say in this body that it doesn't take a rocket scientist to do something. In this case, we actu-

ally do have a physicist, Dr. FOSTER, the gentleman from Illinois, and the author of this outstanding legislation. I yield to him such time as he may consume.

Mr. FOSTER. Mr. Speaker, earlier this month the United States lost a colossus within the science community, a visionary who advanced our understanding of the universe while inspiring generations of younger scientists. John Archibald Wheeler is perhaps best known to the public for coining the term "black hole," but throughout his career he also worked alongside the likes of Albert Einstein and Niels Bohr on theoretical physics' most puzzling questions, helped develop the hydrogen bomb, and, upon his death on April 13, was appropriately called: The last Titan, the only physics superhero still standing.

For 22 years, I was a particle physicist at Fermi National Laboratory, working with my colleagues on giant experiments to move beyond the horizons of current scientific understanding. As a graduate student at Harvard and as an undergraduate before that, I could not escape the mention of John Wheeler's name engraved on the promontories or floating on the delicate backwaters of what is now called modern physics.

As a member of the tribe of experimental physicists, that is, people like me who did real experiments in the real world, we were always surrounded by a wondrous shimmering cloud of theoretical physicists. These are men and women who spend their days bobbing and weaving through the world of what might be mathematically possible, of what might show up in experiments that have yet to be invented, or what might have shown up if we had just done the last experiment just a little more carefully. John Wheeler was one of the most luminous droplets in that shimmering cloud.

As young scientists, we studied the legacy of those great minds, physicists like Einstein, Bohr, Enrico Fermi, and John Archibald Wheeler. To a fellow physicist, the breadth of John Wheeler's achievements are staggering. Born in Jacksonville, Florida on July 9, 1911, he graduated from high school at 15, and earned his Ph.D. from Johns Hopkins University at the age of 21. He sailed to Copenhagen a year later to begin work with the eminent physicist Niels Bohr, and in 1939 the pair produced the first description of how nuclear fission works. During the Second World War, Dr. Wheeler joined with scientists working on the Manhattan Project to build the atomic bomb. He continued to work with the U.S. government well after the war, and was awarded the Enrico Fermi Award by President Johnson in 1968.

By the time he returned to academic life, Dr. Wheeler had become fascinated with Einstein's General Theory of Relativity. Studying gravitational collapse, he introduced not only the term black hole, but also the concept of the

wormhole, a hypothetical tunnel in space-time. Dr. Wheeler was willing to passionately consider seemingly incomprehensible phenomena. In 1999, he wrote that the black hole "teaches us that space can be crumpled like a piece of paper into an infinitesimal dot, that time can be extinguished like a blown-out flame, and that the laws of physics that we regard as sacred, as immutable, are anything but." His work in the 1960s revived and transformed this field.

In the last years of his career, Dr. Wheeler considered the mysterious and sometimes bizarre world of quantum mechanics, seeking connections between science and philosophy to explain fundamental questions of existence.

Despite these high achievements, Dr. Wheeler remained committed to the nurturing of the next generation of scientists. He continued to teach introductory classes to undergraduates throughout his career, and he mentored some of the century's most noted theoretical physicists. Any physicist with the amount and color of the hair that I possess will also have indelible memories of "MTW," the big black book called *Gravitation* authored by Misner, Thorne, and John Archibald Wheeler that describes in intuitive terms what is really going on in Einstein's general theory of relativity.

So at a time when the primacy of our Nation's science programs are in peril, John Wheeler's example should remind us of our own commitment to the next generation of American scientists and innovators.

Mr. Speaker, it is an honor to introduce this resolution, and I urge my colleagues to join me in honoring the life and achievements of John Wheeler. The power of his intellectual accomplishments and the memorable color of his phrases will grace physics textbooks forever.

Mr. LUCAS. Mr. Speaker, I yield back the balance of my time.

Mr. BAIRD. Mr. Speaker, I want to thank Dr. FOSTER for introducing this resolution, and for his eloquent description of an individual to whom we owe such a great debt in this country.

A recent survey asked citizens of the United States if they could name a single living United States scientist, and, sadly, many, many weren't. In this body it is not at all uncommon for us to bring up suspension bills honoring sports teams who may have won an NCAA championship or the Super Bowl or something like that. It is thoroughly appropriate that we do more to recognize outstanding scientists who did not just win a single sporting event, but changed the face of the Earth through their intellect, through their diligence, and through their discoveries. And I very much commend Dr. Foster for raising this, and I thank him. And, I hope it is not the last that he will enlighten us with his knowledge as a physicist. I know it won't be. But I would urge this body to see what we

could do more through our actions here on the House Floor and in our districts to do more to honor and elevate the status of U.S. scientists so that we could provide role models for young people and rise above the gathering storm.

Our science committee, chaired by BART GORDON, has helped lead the effort in that. We are proud to have passed The America COMPETES Act. The America COMPETES Act is designed to produce many, many more John Wheelers. I want to express our thanks on behalf of the Congress to his family and our condolences for their loss.

I yield back the balance of my time and urge a "yes" vote on this outstanding resolution.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Washington (Mr. BAIRD) that the House suspend the rules and agree to the resolution, H. Res. 1118.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the resolution was agreed to.

A motion to reconsider was laid on the table.

□ 1600

RECOGNIZING THE 60TH ANNIVERSARY OF THE FOUNDING OF THE MODERN STATE OF ISRAEL

Mr. BERMAN. Mr. Speaker, I move to suspend the rules and agree to the concurrent resolution (H. Con. Res. 322) recognizing the 60th anniversary of the founding of the modern State of Israel and reaffirming the bonds of close friendship and cooperation between the United States and Israel.

The Clerk read the title of the concurrent resolution.

The text of the concurrent resolution is as follows:

H. CON. RES. 322

Whereas on November 29, 1947, the United Nations General Assembly voted to partition the British Mandate of Palestine and create a Jewish state;

Whereas on May 14, 1948, the people of Israel proclaimed the establishment of the sovereign and independent State of Israel, and the United States Government established full diplomatic relations with Israel;

Whereas the desire of the Jewish people to establish an independent modern State of Israel is an outgrowth of the existence of the historic kingdom of Israel established in the Land of Israel 3,000 years ago, with the city of Jerusalem as its capital;

Whereas for over 2,000 years, there has been continuous Jewish presence and residence in the land comprising the modern State of Israel;

Whereas the establishment of the modern State of Israel as a homeland for the Jewish people followed the slaughter of more than 6,000,000 European Jews during the Holocaust;

Whereas since its establishment 60 years ago, the modern State of Israel has rebuilt a nation, forged a new and dynamic democratic society, and created a thriving economic, political, cultural, and intellectual

life despite the heavy costs of war, terrorism, and unjustified diplomatic and economic boycotts against the people of Israel;

Whereas the people of Israel have established a vibrant, pluralistic, democratic political system, including freedom of speech, association, and religion; a vigorously free press; free, fair and open elections; the rule of law; a fully independent judiciary; and other democratic principles and practices;

Whereas Israel has developed some of the leading universities in the world, and 8 Israeli citizens have been awarded the Nobel Prize;

Whereas Israel has developed an advanced, entrepreneurial economy, is among the world's leaders in the high-tech industry, and is at the forefront of research and development in the field of renewable energy sources;

Whereas Israel regularly sends humanitarian aid, search-and-rescue teams, mobile hospitals, and other emergency supplies, to help victims of disasters around the world, including the 1994 Rwandan civil war, the 1998 bombing of the United States Embassy in Kenya, the 1999 earthquakes in Turkey, the 2004 Indian Ocean tsunami, the 2005 hurricanes along the southern coast of the United States, and the 2007 fires in Greece;

Whereas Israel has absorbed millions of Jews from countries throughout the world and fully integrated them into Israeli society;

Whereas Israel has bravely defended itself from repeated terrorist and military attacks since its independence;

Whereas successive leaders of Israel have sought to achieve peace with Israel's Arab neighbors;

Whereas Israel has established peaceful bilateral relations with neighboring Egypt and Jordan and has made its desire to establish peaceful relations with all Arab states abundantly clear;

Whereas for 6 decades, the United States and Israel have maintained a special relationship based on mutually shared democratic values, common strategic interests, and moral bonds of friendship and mutual respect;

Whereas the American people feel a strong affinity for the Israeli people based on common values and shared cultural heritage; and

Whereas the United States continues to regard Israel as a strong and trusted ally and an important strategic partner: Now, therefore, be it

Resolved by the House of Representatives (the Senate concurring), That Congress—

(1) recognizes the historic significance of the 60th anniversary of the reestablishment of the sovereign and independent State of Israel as a homeland for the Jewish people;

(2) reaffirms its enduring support for Israel as Israel pursues peace with its neighbors;

(3) reaffirms its support for Israel's right to defend itself against threats to its security and existence;

(4) commends the people of Israel for their remarkable achievements in building a new state and a pluralistic, democratic society in the face of terrorism, as well as hostility, ostracism, and belligerence from many of their neighbors;

(5) reaffirms the bonds of friendship and cooperation which have existed between the United States and Israel for the past 60 years, and commits to strengthening those bonds; and

(6) extends the warmest congratulations and best wishes to the State of Israel and the Israeli people for a peaceful, prosperous, and successful future.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from California (Mr. BERMAN) and the gentlewoman from Florida (Ms. ROSELEHTINEN) each will control 20 minutes.